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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,017	01/25/2001	Masayoshi Kobayashi	P/2291-98	5189

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EXAMINER	
PHAM, HUNG Q	

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/770,017	KOBAYASHI, MASAYOSHI	
	Examiner	Art Unit	
	HUNG Q PHAM	2162	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 November 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: *8,11,15 and 23*.

   Claim(s) rejected: *7,10,14,22,24-27 and 29*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

SHAHID ALAM
PRIMARY EXAMINER

Applicant's arguments filed 11/23/2004 have been fully considered but they are not persuasive.

(1) As argued by applicants:

In powers the existence of redundancy is the condition for deciding whether or not a single summary node is used to replace two summary nodes. In fact, since such replacement by definition reduces memory utilization, it makes no sense whatsoever to use possible memory reduction as a criterion for such replacement. And, of course, it is not so used by Powers. Thus, contrary to the statement in the Office Action that it could be used, it is not used as a condition. Further, it would make no sense to modify Powers so as to use a certainty (memory reduction) as a condition for the substitution. Thus, there would have been not motivation whatsoever to have modified Powers to add steps of making a determination based on this criterion/condition.

Examiner respectfully points out that this argument does not relate to the claimed subject matter of claims 24, 25, 26 and 27, and especially claim 24, therefore does not warrant consideration (ie., the subject matter is not claimed).

As claimed in claims 24-27:

determining whether the selected sub-tree structure satisfies one or more predetermined conditions; and when the selected sub-tree structure satisfies the one or more predetermined conditions, replacing the selected sub-tree structure with the equivalent table to construct the data structure,

wherein the predetermined conditions are that: (1) an amount of memory required to store a data structure including the equivalent table in place of the selected sub-tree structure is smaller than that required to store the assumed tree structure; and (2) search performance of the data structure is not lower than that of the assumed tree structure.

As seen, the claimed *predetermined conditions* including *predetermined condition (1)* and *(2)* does not relate to *the predetermined conditions* of step *determining* because the data structure in the step determining is not the data structure in condition (1) and (2). The data structure in step determining is the tree and the table, and the data structure in condition (1) and (2) is the table itself. Therefore, redundancy as taught by Powers is *the predetermined condition* in step determining.

The *predetermined conditions (1)* is *an amount of memory required to store a data structure including the equivalent table in place of the selected sub-tree structure is smaller than that required to store the assumed tree structure*. As seen, *a data structure including the equivalent table in place of the selected sub-tree structure* is *the equivalent table* itself. The memory for storing *the equivalent table* is always smaller than the tree structure because *the equivalent table* is just part of the tree, and because this condition is always true, redundancy eliminating as taught by Powers meets the requirement of *predetermined conditions (1)*. In other words, the claimed invention does not need *predetermined conditions (1)* and *(2)*, because the conditions are always satisfied when the process is implemented.

(2) As argued by applicants:

In the invention defined by the independent claims, the sub-tree may or may not take up more space than a table that would be used to replace it. One criterion used to decide whether to make the replacement is whether the table would take up more space than the sub-tree it would replace. In contrast, in Powers, multiple identical structures may be replaced by a single structure that represents all the identical structures. Of necessity, there will be a reduction in the amount of memory used, so the fact of the reduction would never be used as a criterion.

Examiner respectfully points out that this argument does not relate to the claimed subject matter of claims 24, 25, 26 and 27, and therefore does not warrant consideration (ie., the subject matter is not claimed: *One criterion used to decide whether to make the replacement is whether the table would take up more space than the sub-tree it would replace*).

(3) As argued by applicants:

As is made clear from the foregoing, in Powers, there is no teaching or suggestion of determining whether the amount of memory required when replacing a node with a summary table is smaller than that required without the use of such replacing. In contrast, the invention defined in claim 24 provides a criterion by which to determine which part of the tree should be replaced with the table.

Examiner respectfully traverses because of the reasons as discussed above. The criterion as argued by applicant does not relate to the step of determining, and the criterion is always satisfied when implementing the process.

(4) For at least the foregoing reasons, claims 24-27 and 29 are not patentable over the prior art of record.